Referring to the Literal Translation of International Application PCT/DE2003/004182

In the Claims:

1. (original) Method for calibrating 3D image sensors, said sensors comprising:

a light source emitting a modulated emitted signal into the viewed scene; and

a receiving array consisting of a plurality of pixels, said pixels generating a received signal for every pixel individually from a demodulation signal comprising a predetermined phase position with respect to the emitted signal and from the detected radiation reflected by the scene, said received signal being used as a measure of distance;

characterized in that

for the purpose of calibration, the entire receiving array is exclusively illuminated with a calibrating radiation comprising a phase position which is at least largely homogenous for all pixels with respect to the demodulation signal and that the occurring received signals of the individual pixels are evaluated.

2. (original) Method according to claim 1, characterized in that the relative phase deviation between the pixels is detected.

Claims **3 to 9** (canceled).

10. (new) Method according to claim 1, characterized in that at least a second measurement is carried out with a calibrating radiation comprising a second phase position between the calibrating radiation and the demodulation signal, said second phase position differing from the first phase position.

11. (new) Method according to claim 10, characterized in that the phase relation is freely selectable and preferably adjusted along a predetermined characteristic for the respective number of emitting processes.

12. (new) Method according to claim 1, characterized in that the calibrating radiation is generated by a further light source exclusively illuminating the entire receiving array at defined intervals.

13. (new) Method according to claim 1, characterized in that the calibrating radiation is generated by the already existing light source, wherein the radiation is deflected from the light source to the receiving array and the external connection for illuminating the scene is interrupted.

14. (new) Method according to claim 1, characterized in that the pixel-individual phase deviation detected at the defined intervals is recorded in a look-up table for every

pixel individually for correcting the 3D image information of the viewed scenes.

15. (new) Use of the method according to claim 1, for 3D image sensors for sensing the environment and the passenger compartment of motor vehicles, in particular for obstacle and/or traffic lane recognition with a motor vehicle and/or for seat occupancy recognition.

16. (new) Use of the method according to claim 1, for 3D image sensors for sensing in connection with industrial facilities.

[REMARKS FOLLOW ON NEXT PAGE]